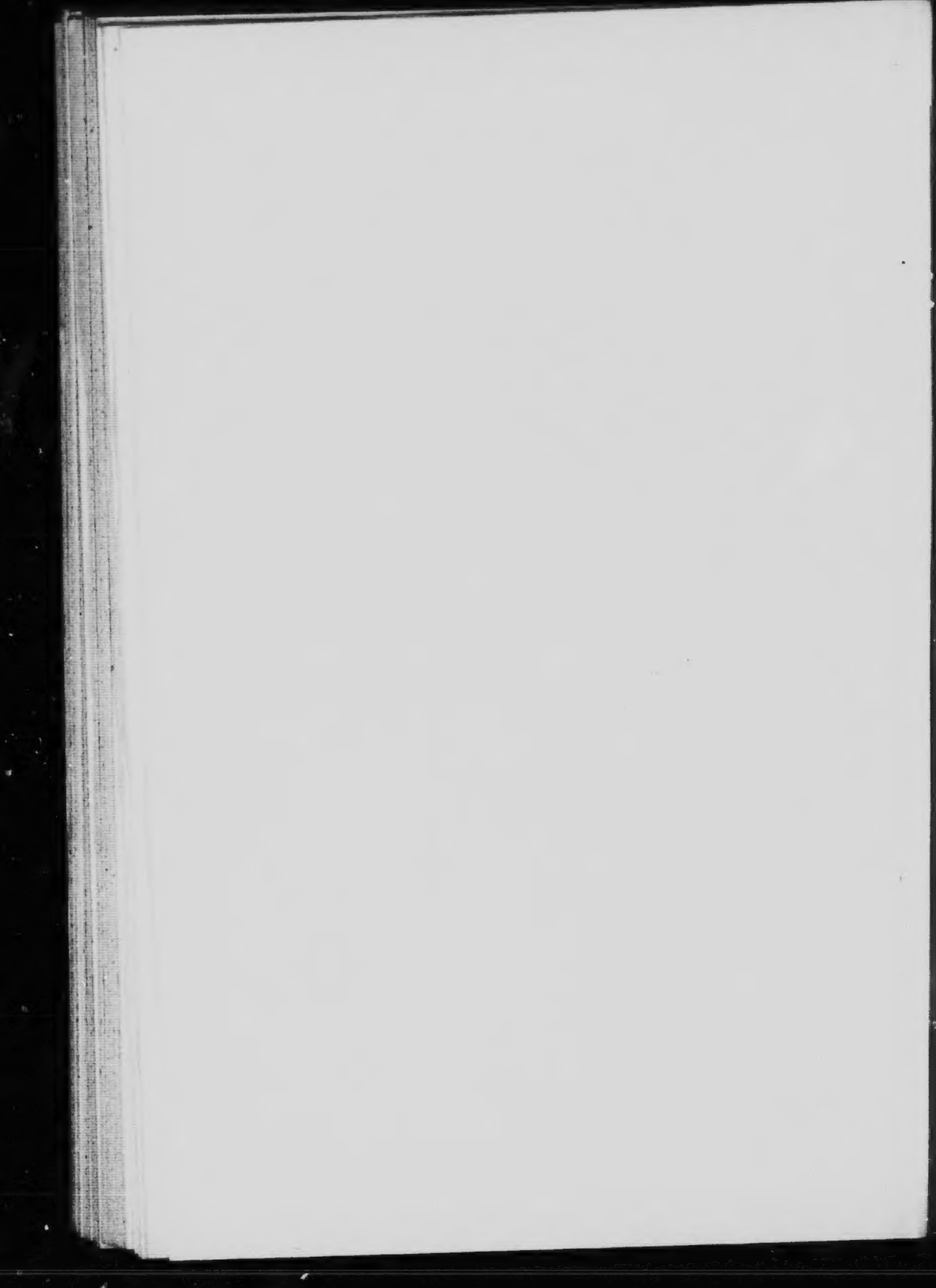


O. H. M. S.

W. J. Gerald
Deputy Minister.

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA
—
BULLETIN No. 208
—
Condensed and Evaporated Milk.



LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA

BULLETIN No. 208

Condensed and Evaporated Milk.

W. J. GERALD, Esq.,
Deputy Minister of Inland Revenue.

OTTAWA, May 26, 1910.

SIR,—I have the honour to hand you herewith a report upon 154 samples purchased as Condensed and Evaporated Milk, throughout the Dominion, in March of this year.

Details of the collection are as follows:—

Condensed Milk.....	104 samples	} Analysed.
Evaporated Milk.....	45 do	
Milk Food (Collected by mistake)....	3 do	
Spoiled samples.....	2 do	} Not do

Further details as to vendor, manufacturer, and percentage results of analysis are given in Table I. Table II gives a synopsis of the results obtained with samples of the same brand, for evaporated (unsweetened) milks, the different brands being arranged in alphabetic order. Table III does the same for the condensed (sweetened) milks.

The last examination of Condensed Milk was reported in Bulletin 144 (January 1908). It represented 142 samples, classified thus:—

Evaporated Milk.....	47 samples.
Condensed Milk.....	95 do

These names being applied respectively to the non-sugared, and sugared products. Nine brands of Evaporated (unsugared) Milk were represented of which brands only four (4) are found in the present collection. The following comparison of these brands is of interest:—

EVAPORATED MILK.

Brand.	Inspection of 1908.		Inspection of 1910.	
	Number of Samples.	Mean fat.	Number of Samples.	Mean fat.
Carnation.....	1	6.93	2	6.74
Jersey Cream.....	8	8.08	11	7.27
Peerless.....	11	6.50	6	6.70
St. Charles.....	16	7.10	12	6.94

Nineteen brands of Condensed (sugared) Milk appear in the collection of 1908, of which twelve (12) are found in the present collection, as follows:—

Brand.	Inspection of 1908.		Inspection of 1910.	
	Number of Samples.	Mean fat.	Number of Samples.	Mean fat.
Challenge	3	7.37	10	7.83
Clover	9	7.91	4	7.27
Eagle	12	8.00	13	7.85
Gold Seal	11	7.33	3	7.60
Good Luck	1	7.73	1	7.06
Lion	1	7.62	1	8.92
Nestle's (England).	3	7.87	13	8.27
Oak	6	8.51	1	8.42
Pheasant	2	5.10	4	4.35
Purity	1	7.87	1	7.64
Reindeer	20	8.61	12	7.97
Silver Cow	11	7.64	9	7.98

An inspection of these tables shows that considerable care is taken in the manufacture of concentrated milk. In most cases the difference in fat value between the averages for 1908 and 1910 is less than one-half of one per cent; and with a legalized standard to be met, it is reasonable to believe that future inspections of this article will show still more constancy and uniformity in the output.

Attention has more than once been called to the misuse of the term *Cream* in naming unsweetened condensed milk. The word *Cream* has a perfectly definite and well understood signification, and is legally defined as follows: 'Cream is that portion of milk, rich in milk fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force, is fresh and clean, and contains (unless otherwise specified), not less than eighteen (18) per cent of milk fat.'

It is manifestly misleading to apply such a term to the article tabulated in Table II. Such an article is more truly described as *Evaporated Milk*, and is defined for purposes of the Act as follows: 'Evaporated Milk is milk from which a considerable portion of water has been evaporated, and contains not less than 26 per cent of milk solids, and not less than 7.20 per cent of milk fat.'

Evaporated Milk is quantitatively defined in terms of Total Milk Solids, and Milk Fat.

The mean results of the nine brands of Table II appear as follows:—

EVAPORATED MILK.

Name of Brand.	Total Solids		Milk Fat	
	Found.	Below Standard.	Found.	Below Standard.
B. C.	25.29	0.71	5.92	1.28
Canada First	29.02	above	7.52	above
Carnation	23.86	2.14	6.74	0.46
En-press	30.20	above	8.12	above
Imperial	22.04	3.96	5.64	1.56
Jersey Cream	27.47	above	7.27	above
Libby's	24.64	1.36	6.00	1.20
Peerless	26.97	above	6.70	0.50
St. Charles	26.64	above	6.94	0.25

The standards in question have been adopted after very careful study of the subject, and the fact that they are fully met by three brands, and are met within one half of one per cent of fat by six brands proves that the requirements are reasonable.

For Condensed (sugared) Milks the corresponding standard limits are 28 per cent of milk solids, and 7.7 per cent of fat. Of these two requirements, quite the more important is the fat percentage. Exact determinations of milk solids are interfered with, and rendered difficult by the presence of added cane sugar, which is more or less changed in character during the processing. The following synopsis of mean results, as found in Table III, gives the fat content at a glance.

Name of Brand.	Fat found.	Above Standard.	Below Standard.
Anchor	8.24	0.58	—
Banner	5.55	—	1.74
Beaver	7.56	—	0.14
Canadian	8.16	0.46	—
Canada First	7.74	0.04	—
Challenge	7.83	0.13	—
Clover	7.27	—	0.43
Eagle	7.85	0.15	—
Emery's	7.64	—	0.66
Gold Seal	7.60	—	0.10
Good Luck	7.06	—	0.64
Lion	8.92	1.22	—
Nestle's (England)	8.27	0.37	—
" (Norway)	8.69	0.99	—
" (Switzerland)	8.64	1.24	—
Oak	8.42	0.72	—
Pheasant	4.35	—	2.35
Princess	5.40	—	2.30
Purity	7.64	—	0.06
Red Cow	0.60	—	7.10
Reindeer	7.97	0.27	—
Royal	4.60	—	3.10
Silver Cow	7.98	0.28	—
Sweet's Pride	8.28	0.58	—
White Star	7.96	0.26	—

It will be seen that 12 brands, out of 23 tabulated, reach the required standard for fat, while five others come within one half of one per cent of its requirements. Of the remaining brands some are professedly manufactured from skimmed milk. This finding would therefore seem to support the reasonableness of our standards, as regards milk fat content for Condensed Milk. For the information of those interested in milk and its products the latest revision of proposed standards is printed as an appendix to this report.

I beg to recommend the publication of this report as Bulletin No. 208.

I have the honour to be, sir,

Your obedient servant,

A. MCGILL,
Chief Analyst.

TABLE I.—CONDENSED AND

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
DISTRICT OF NOVA SCOTIA—						
1910.						
Mar. 7	Evaporated Cream...	41916	Dillon Bros., Halifax, N.S.	3 cans	45	Aylmer Canning Co., Aylmer, Ont.
" 7	"	41917	W. E. Crowe & Co., Halifax, N.S.	3 "	45	Borden's Condensed Milk Co., New York.
" 7	"	41918	Share & Campbell, Halifax, N.S.	3 "	45	Truro Condensed Milk Co., Truro, N.S.
" 8	"	41919	W. J. Hopgood & Son, Halifax, N.S.	3 "	45	St. Charles Condensing Co., St. Charles, Ill.
" 11	Condensed Milk	41920	Taylor Drug Co., Bridge-water, N.S.	3 "	75	H. Nestle, Switzerland.....
" 8	"	41921	J. L. Archibald & Son, Halifax, N.S.	3 "	54	Truro Condensed Milk Co., Truro, N.S.
" 8	"	41922	City Provision Co., Halifax, N.S.	3 "	30	Canada Milk Condensing Co., Antigonish, N.S.
" 8	"	41923	E. Donahoe & Son, Halifax, N.S.	3 "	36	Truro Condensed Milk Co., Truro, N.S.
" 8	"	41924	S. T. Craig, Halifax, N.S.	3 "	30	Canada Milk Condensing Co., Antigonish, N.S.
" 8	"	41925	E. B. Tracey, Halifax, N.S.	3 "	26	Sweet Milk Condensing Co., Laurentides, Que.

DISTRICT OF PRINCE EDWARD ISLAND—

Mar. 5	Condensed Milk	38646	Johnson & Johnson, Charlottetown.	3 tins.	75	Henri Nestle, Vevey, Switzerland.
" 9	"	38647	J. A. Hynes, Kensington.	3 "	60	Charlottetown Condensed Milk Co., Charlottetown.
" 10	"	38648	R. T. Holman, Ltd., Summerside.	3 "	30	Aylmer Condensed Milk Co., Aylmer, Ont.
" 10	"	38649	T. N. Enman, Summerside	3 "	75	Henri Nestle, Vevey, Switzerland.
" 10	Condensed Cream...	38650	Brace & McKay, Summerside.	3 "	36	Truro Condensed Milk Co., Truro, N.S.
" 10	" Milk....	38651	F. W. Strong, Summerside	3 "	42	Aylmer Condensed Milk Co., Aylmer, Ont.
" 10	" Cream...	38652	A. W. P. Gourlie, Summerside.	3 "	60	.....
" 15	" Milk...	38653	Sterns Bros., Souris.	2 "	36	Borden Condensed Milk Co., Tillsonburg, Ont.
" 17	"	38654	McDonald & McKinnon, Charlottetown.	3 "	75	Henri Nestle, Vevey, Switzerland.
" 17	"	38655	Sanderson & Co., Charlottetown.	3 "	45	Charlottetown Condensed Milk Co., Charlottetown.

EVAPORATED MILK (OR CREAM).

Inspector's Report (Is not an expression of opinion).	RESULTS OF ANALYSIS.							No. of Sample.	Remarks and Opinion of the Chief Analyst.	
	Density.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Less to 500 of Warm Water.			Calculated on 9 per cent basis.
										Concentration.	Fat in original bulk.

R. J. WAUGH, INSPECTOR.

		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
Canada First	1 0750	72 92	27 08	1 46	6 68	10 78	.....	2 37	2 95	41916
Peerless	1 0721	74 00	26 00	1 68	6 56	10 51	.....	2 25	3 04	41917
Jersey Cream	1 0757	72 76	27 24	1 74	6 88	10 53	.....	2 36	3 04	41918
St. Charles	1 0700	74 04	25 96	1 44	6 84	9 85	.....	2 21	3 22	41919
.....	1 3186	26 44	73 56	1 62	8 92	.....	54 16	.....	.....	41920
Reindeer	1 3298	27 00	73 00	1 86	7 36	.....	55 96	.....	.....	41921
Red Cow	1 3455	32 24	67 76	1 92	6 60	.....	56 36	.....	.....	41922
Clover	1 3116	31 04	68 96	1 54	7 00	.....	53 40	.....	.....	41923
Royal	1 3298	29 52	70 48	1 75	4 60	.....	55 00	.....	.....	41924
Sweet's Pride	1 3188	27 28	72 72	1 82	8 28	.....	54 80	.....	.....	41925

THEO. MOORE, INSPECTOR.

.....	1 3185	27 32	72 68	1 88	9 08	.....	52 52	.....	.....	38646
Lion	1 2920	29 96	70 04	1 54	8 92	.....	50 68	.....	.....	38647
Beaver	1 3158	28 80	71 20	1 62	7 56	.....	54 16	.....	.....	38648
.....	1 3276	26 24	73 76	1 98	7 60	.....	55 68	.....	.....	38649
Reindeer	1 0736	73 16	26 84	1 56	6 92	10 00	.....	2 31	3 13	38650
Canada First	1 3165	28 48	71 52	1 72	7 48	.....	56 00	.....	.....	38651
St. Charles	1 0728	72 48	27 52	1 44	7 00	10 01	.....	2 37	3 07	38652
Challenge	1 3242	26 20	73 80	1 74	8 28	.....	55 52	.....	.....	38653
.....	1 3206	27 04	72 96	1 86	8 48	.....	53 76	.....	.....	38654
Oak	1 3090	28 24	71 76	1 82	8 42	.....	53 36	.....	.....	38655

TABLE I.—CONDENSED AND

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	

DISTRICT OF NEW BRUNSWICK—						
1910.						
Mar. 7	Evaporated Cream..	39660	Dearborn & Co., St. John, N.B.	3 tins.	45	Aylmer Condensed Milk Co., Aylmer, Ont.
" 7	Condensed Milk	39661	Baird & Peters, St. John, N.B.	3 " "	38	Borden's Condensed Milk Co., New York.
" 10	"	39662	H. W. Cole Co., Ltd., St. John, N.B.	3 " "	35	The Truro Condensed Milk Co., Ltd., Truro, N.S.
" 15	"	39663	G. T. Whelpley Estate, Fredericton, N.B.	3 " "	45	The St. Chas. Condensing Co., Ingersoll.
" 16	"	39664	J. Rankine Brown, Woodstock, N.B.	3 " "	54	Truro Condensed Milk Co., Ltd., Truro, N.S.
" 17	Evaporated Cream..	39665	D.R. Bedell, Andover, N.B.	3 " "	36	St. Charles Condensing Co., Ingersoll, Ont.
" 18	Condensed Milk	39666	Geo. T. Baird Co., Ltd., Perth, N.B.	3 " "	45	Aylmer Condensed Milk Co., Aylmer, Ont.
April 1	Evaporated Cream .	39667	Walter Gilbert, St. John, N.B.	3 " "	15	Borden's Condensed Milk Co., New York.
" 6	Condensed Milk	39668	Reed Co., Ltd., Moncton, N.B.	3 " "	30	Canada Condensed Milk Co., Ltd., Antigonish, N.S.
Mar. 9	Jersey Cream.	39669	G. E. Baibour Co., Ltd., St. John, N.B.	3 " "	25	The Truro Condensed Milk Co., Truro, N.S.

DISTRICT OF QUEBEC—						
Mar. 4	Condensed Milk	36528	W. Brunet & Cie, 139 Rue St. Joseph, Que.	3 tins.	45	Leeming Mills Co., Montreal
" 4	"	36529	" " " " " "	3 " "	45	" " "
" 4	"	36530	" " " " " "	3 " "	45	" " "
" 4	"	36531	T. E. Livernois, St. Jean & Bonillard.	3 " "	45	" " "
" 4	"	36532	" " " " " "	3 " "	45	" " "
" 4	"	36533	A. Rinfret, 414 Rue St. Joseph, Que.	3 " "	45	Langlois & Paradis, Quebec.
" 4	"	36534	O. Bacon, 28 Rue Hermine, Que.	3 " "	45	Bedard & frere, Quebec.....
" 4	"	36535	E. Robitail, 48 Rue Victoria, Que.	3 " "	45	Langlois & Paradis, Quebec..
" 7	"	36536	O. Lacroix, 19 Rue St. Joseph, Que.	3 " "	45	Turcot & frere, Quebec.....
" 7	"	36537	" " " " " "	3 " "	30	T. B. Renaud & Cie, Quebec

DISTRICT OF ST. HYACINTHE—						
Mar. 3	Condensed Milk	1279	D. H. Conner, Bedford . . .	3 tins.	45	Mathewson's Sons, Montreal
" 7	"	1280	D. Hebert, Drummondville	3 " "	45	St. Chas. Condensing Co., Ingersoll, Ont.
" 7	"	1281	P. Lambert, Daveluyville..	3 " "	45	.....
" 8	"	1282	J. O. T. Dufresnes, Nicolet	3 " "	38	Aylmer Condensed Milk Co., Aylmer, Ont.

EVAPORATED MILK (OR CREAM).

Inspector's Report (Is not an expres- sion of opinion).	RESULTS OF ANALYSIS.										No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Density.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to 500 cc Warm Water.	Calculated on 9 per cent basis.				
								Concen- tration.	Fat in original bulk.			
J. C. FERGUSON, INSPECTOR.												
Canada First.	1.0845	69.60	30.40	1.86	7.56	12.19	.....	2.67	2.98	39660	
Eagle.	1.3242	27.12	72.88	1.54	7.80	.....	55.72	.....	.....	39661	
Reindeer.	1.3263	26.96	73.04	1.86	7.60	.....	56.00	.....	.....	39662	
Purity.	1.3220	27.32	72.68	1.62	7.64	.....	55.28	.....	.....	39663	
Clover.	1.3130	29.24	70.76	1.56	7.16	.....	54.80	.....	.....	39664	
St. Charles. ...	1.0761	72.32	27.68	1.58	6.68	10.67	.....	2.44	2.86	39665	
Canada First.	1.3131	28.16	71.84	1.82	8.12	.....	53.64	.....	.....	39666	
Peerless.	1.0780	72.16	27.84	1.54	6.92	10.33	.....	2.43	2.98	39667	
Phasant.	1.3206	31.68	68.32	1.76	5.04	.....	53.36	.....	.....	39668	
Jersey Cream.	1.0727	72.56	27.44	1.74	6.76	10.30	.....	2.39	2.94	39669	
E. BELAND, INSPECTOR.												
.....	1.3144	26.44	73.56	1.60	9.04	.....	54.52	.....	.....	36528	
.....	1.3270	27.36	72.64	1.76	8.48	.....	54.68	.....	.....	36529	
.....	1.3193	27.08	72.92	1.66	8.52	.....	55.32	.....	.....	36530	
.....	1.3200	27.24	72.76	1.76	8.28	.....	54.44	.....	.....	36531	
.....	1.3179	26.56	73.44	1.78	9.38	.....	54.52	.....	.....	36532	
.....	1.3116	27.88	72.12	1.66	8.74	.....	53.00	.....	.....	36533	
.....	1.3291	26.64	73.36	1.72	7.28	.....	57.20	.....	.....	36534	
.....	1.3014	28.04	71.96	1.56	6.96	.....	55.32	.....	.....	36535	
.....	1.0783	71.64	28.36	1.70	6.96	10.99	.....	2.49	2.93	36536	
.....	1.3117	28.64	71.36	1.60	7.88	.....	53.68	.....	.....	36537	
J. C. ROULEAU, INSPECTOR.												
Challenge.	1.3144	27.32	72.68	1.46	8.32	.....	53.92	.....	.....	1279	
Silver Cow.	1.3028	29.76	70.24	1.64	8.24	.....	51.80	.....	.....	1280	
Challenge.	1.3110	29.48	70.52	1.52	6.96	.....	54.24	.....	.....	1281	
Canada First.	1.3123	28.08	71.92	1.78	7.84	.....	54.24	.....	.....	1282	

TABLE I.—CONDENSED AND

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
DISTRICT OF ST. HYACINTHE—						
1910.						
Mar. 15	Condensed Milk....	1283	Gihmour & Girard, Water- loo.	2 tins.	50	Henri Nestle, Vevey, Switzer- land.
" 9	Evaporated Cream..	1284	Paul Touriguy & fils	3 "	45	St. Chas. Condensing Co., Ingersoll, Ont.
" 9	"	1285	H. H. Guay, Victoriaville.	3 "	60	Aylmer Condensed Milk Co., Aylmer, Ont.
" 10	"	1286	Denault Grain and Produce Co., Sherbrooke.	3 "	25	Borden's Condensed Milk Co., Ingersoll, Ont.
" 10	"	1287	Woodman & McKee, Coati- cook.	3 "	30	The Truro Condensed Milk Co., Truro, N.S.
" 18	"	1288	Thos. Hebert, St. Hyacinthe	3 "	60	" " "
DISTRICT OF MONTREAL—						
Mar. 1	Condensed Milk	40402	The Leeming Mills Co., Ltd., Montreal.	3 tins.	38	Henri Nestle
" 1	"	40403	" " "	3 "	39	"
" 1	"	40404	" " "	3 "	38	"
" 2	"	40405	George Graham, 572 St. Catherine W., Montreal.	3 "	45	"
" 2	"	40406	" " "	3 "	45	"
" 3	"	40407	D. Demetelin, 144 St. An- toine St., Montreal.	3 "	30	Canada Condensed Co., Ltd., Antigonish, N.S.
" 7	"	40408	Truro Condensed Milk Co., Ltd., Huntingdon, P.Q.	3 "	37	Vendors
" 7	"	40409	" " "	3 "	30	"
" 8	"	40410	T. H. Mallette, 20 Lagau- chetiere St. W., Montreal	3 "	45	Aylmer Condensed Milk Co., Ltd.
" 7	Condensed Cream...	40411	Truro Condensed Milk Co., Ltd., Huntingdon, P.Q.	3 "	30	Vendors
DISTRICT OF OTTAWA—						
Feb. 28	Evaporated Cream..	42906	The F. J. Castle Co., Ltd., Ottawa.	3 tins.	31	Canadian Cannery Ltd., Aylmer, Ont.
Mar. 4	Condensed Milk....	42907	E. H. Brown, Cornwall.	3 "	75	Unknown
" 9	"	42908	Beattie & Argue, Ottawa.	3 "	75	Nat. Drug & Chem. Co., Ltd., Ottawa.
" 9	Evaporated Cream..	42909	Bryson Graham Ltd., Otr- wa.	3 "	38	H. N. Bate & Sons., Ottawa.
" 10	Condensed Milk ...	42910	W. T. Pinkerton & Co., Ottawa.	3 "	60	" " "
" 10	"	42936	F. W. Forde, Ottawa.....	3 "	38	Leeming Miles & Co., Mon- treal.
" 10	Evaporated Cream..	42937	P. Lamoureux & Co., Ota- wa.	3 "	45	Provost & Allard, Ottawa ..
" 15	Condensed Milk....	42938	Joseph Grant, Ottawa.....	2 "	30	St. Chas. Condensing Co., Ingersoll, Ont.
" 15	"	42939	Prevost & Allard, Ottawa..	3 "	33	Aylmer Condensed Milk Co., Ltd., Aylmer, Ont.
" 15	Evaporated Cream	42940	A. E. Rea & Co., Ltd., Ottawa	3 "	38	The Truro Condensed Milk Co., Ltd., Truro, N.S.

EVAPORATED MILK (OR CREAM)

Inspector's Report (Is not an expression of opinion).	RESULTS OF ANALYSIS.								No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Density.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to 500 cc Warm Water.	Calculated on 9 per cent basis.		
								Concentration. Fat in original bulk.		
J. C. ROULEAU, INSPECTOR—Continued										

J. C. ROULEAU, INSPECTOR—*Concluded.*

	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	
.....	1.3172	27.40	72.60	1.78	8.48	.....	53.40	.....	.....	.....	1283
Canada First.	1.0861	69.00	31.00	1.76	7.40	12.51	.....	2.76	2.82	.....	1284 Both samples churned. Could not sample.
Peerless.	1.0695	75.00	25.00	1.44	6.16	10.11	.....	2.17	2.94	.....	1285
Jersey.	1.0678	73.44	26.56	1.46	7.40	9.31	.....	2.21	3.48	.....	1286
"	1.0780	72.08	27.92	1.56	6.76	10.94	.....	2.46	2.88	.....	1287
											1288

J. J. COSTIGAN, INSPECTOR.

Made in Switzerland.	1.3048	26.68	73.32	1.72	9.00	.....	54.48	.....	.....	.....	40402
Made in England..	1.3200	27.40	72.60	1.78	8.42	.....	54.28	.....	.....	.....	40403
" Norway.	1.3227	27.04	72.96	1.76	8.36	.....	55.60	.....	.....	.....	40404
" " ..	1.3206	27.08	72.92	1.74	8.52	.....	55.80	.....	.....	.....	40405
" England.	1.3172	27.40	72.60	1.66	8.60	.....	54.12	.....	.....	.....	40406
Pheasant.....	1.2987	32.96	67.04	1.70	5.36	.....	51.52	.....	.....	.....	40407
Reindeer	1.3103	30.00	70.00	1.54	6.96	.....	54.28	.....	.....	.....	40408
Clover	1.3116	29.36	70.64	1.62	7.68	.....	54.16	.....	.....	.....	40409
Canada First.	1.3186	28.48	71.52	1.64	7.16	.....	54.72	.....	.....	.....	40410
Jersey	1.0700	73.52	26.48	1.46	7.04	9.57	.....	2.24	3.26	.....	40411

J. A. RICKEY, INSPECTOR.

Canada First.....	1.0847	69.20	30.80	1.70	8.00	11.96	.....	2.12	3.16	.....	42906
Nest Brand, in England.	1.3172	28.20	71.80	1.74	7.34	.....	53.60	.....	.....	.....	42907
Reindeer.....	1.3227	27.48	72.52	1.68	7.84	.....	55.04	.....	.....	.....	42908
Peerless	1.0763	72.32	27.68	1.54	1.52	10.95	.....	2.39	2.85	.....	42909
Eagle.....	1.3158	26.68	73.32	1.42	9.00	.....	54.28	.....	.....	.....	42910
Nest Brand, in Switzerland.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	42936 Sample too thick to obtain accurate results.
.....	1.0682	75.24	24.76	1.46	6.20	9.49	.....	2.14	3.01	.....	42957
Good Luck.....	1.3035	30.92	69.08	1.66	7.06	.....	53.00	.....	.....	.....	42938
Canada First.	1.3110	27.36	72.64	1.68	8.88	.....	53.16	.....	.....	.....	42939
Jersey Cream.....	1.0730	71.80	28.20	1.54	7.76	10.10	.....	2.37	3.42	.....	42240

TABLE I.—CONDENSED AND

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
DISTRICT OF KINGSTON—						
1910.						
Mar.	1 Condensed Milk	44221	F. Hoag, Kingston	3 tins	45	Borden
"	1 "	44222	C. S. Prouse, Kingston	3 "	45	Nestle's
"	1 "	44223	J. McLeod, Kingston	3 "	45	Borden
"	3 "	44224	R. Templeton, Belleville	3 "	\$ 1.38	
"	3 "	44225	F. C. Clarke, Belleville	3 "	75	
"	2 "	44226	A. J. Gould, Cobourg	3 "	60	Borden
"	3 "	44227	W. J. B. Davison, Port Hope.	3 "	75	"
"	4 "	44228	McDermid & Jury, Peterboro.	3 "	60	"
"	4 "	44229	E. L. Payne, Peterboro	3 "	\$ 1.50	
"	4 "	44230	J. D. Tulley, Peterboro	3 "	60	Borden
DISTRICT OF TORONTO—						
Mar.	2 Evaporated Cream	41462	E. Broad, 142 Queen St. East, Toronto.	3 cans.	15	St. Char. Condensing Co., Ingersoll.
"	2 Condensed Milk	41463	C. C. Wood, 1,001 Queen St. East, Toronto.	"	30	Borden's Condensed Milk Co., New York.
"	3 Evaporated Cream	41464	J. Poleskey, 1,594 Dundas St. West, Toronto.	"	30	" "
"	8 " Milk	41465	Pembles, Hobson & Co., King St., Hamilton.	"	25	Libby, McNeil & Libby, Chicago.
"	8 " Cream	41466	Bain & Adams, King St., Hamilton.	"	15	Aylmer Condensed Milk Co., Aylmer, Ont.
"	14 Condensed Milk	41467	E. J. Wilson, Milton	"	45	Eby Blain Co., Ltd., Toronto.
"	15 "	41468	Park & Park, Hamilton	"	38	John Malcom & Son, St. George.
"	15 Jersey Cream	41469	The W. H. Merriman Co., St. Catharines.	"	22	The Truro Condensed Milk Co., Ltd., Truro, N.S.
"	16 Condensed Milk	41470	J. T. Petrie, Thorold	"	30	John Malcom & Son, St. George.
"	17 "	41471	F. H. Taylor, 4 Erie Ave., Niagara Falls.	"	38	Borden's Condensed Milk Co., Tillsonburg, Ont.
"	18 "	41479	E. J. West & Co., 176 King St. East, Toronto.	"	45	Henri Nestle, Vevey, Switzerland.
"	18 "	41480	" " "	"	45	" "
"	18 "	41481	" " "	"	45	" "

EVAPORATED MILK (OR CREAM).

Inspector's Report. (Is not an expression of opinion).	RESULTS OF ANALYSIS.									No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Density.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to Fat & Warm Water.	Calculated on 9 per cent basis.			
								Concentration.	Fat in original bulk.		
JAS. HOGAN, INSPECTOR.											
Eagle.....	1-3214	27-80	72-20	1-72	7-60		54-64			44221	
										44222	Nestle's Milk Food, purchased by mistake.
Eagle.....	1-3131	27-52	72-48	1-56	9-00		52-84			44223	
										44224	Nestle's Milk Food.
Silver Cow.....	1-3144	27-32	72-68	1-54	8-32		53-60			44225	
	1-3234	27-28	72-72	1-58	7-88		55-92			44226	
Eagle.....	1-3021	31-08	68-92	1-48	7-52		52-52			44227	
".....	1-3242	27-60	72-40	1-72	7-80		55-72			44228	
										44229	Nestle's Milk Food.
Eagle.....	1-3214	27-68	72-32	1-64	7-44		54-96			44230	
H. J. DAGER, INSPECTOR.											
St. Charles.....	1-0735	73-08	26-92	1-54	6-88	10-34		2-32	3-09	41462	
Challenge.....	1-3117	28-24	71-76	1-42	7-76		53-72			41463	
Peerless.....	1-0771	72-34	27-66	1-82	7-08	11-03		2-39	3-10	41464	
Libby's Unsweetened Sterilized Evaporated Milk	1-0679	75-36	24-64	1-60	6-00	9-90		2-15	2-90	41465	Sample somewhat churned, consequently, remains not altogether satisfactory.
Canada First.....	1-0789	70-56	29-44	1-48	7-48	10-91		2-56	3-66	41466	
Anchor.....	1-3104	29-32	70-68	1-82	8-28		52-12			41467	
Banner.....	1-3448	28-72	71-28	1-70	8-88		58-20			41468	
Jersey Cream.....	1-0708	73-12	26-88	1-46	7-48	9-42		2-24	3-47	41469	
Princess.....	1-3383	27-32	72-68	1-76	5-40		57-36			41470	
Challenge.....	1-3193	27-00	73-00	1-58	7-64		55-84			41471	
Labelled Nestle's Condensed Milk in Norway.	1-3220	26-88	73-12	1-68	8-68		55-36			41479	
Labelled Nestle's Condensed Milk in England	1-3234	27-24	72-76	1-86	8-18		54-64			41480	
Labelled Nestle's Condensed Milk prepared in Switzerland.	1-3138	26-88	73-12	1-68	9-00		54-24			41481	

TABLE I.—CONDENSED AND

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	CONT.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
DISTRICT OF LONDON—						
1910.						
Mar. 10	Condensed Milk	44719	Jackson & Son, Guelph....	3 cans.	45	Truro Condensed Milk Co., Truro, N.S.
" 10	"	44720	Hood Bros., Guelph	"	45	McPherson & Glasco, Hamilton.
" 11	"	44721	Beck & Schell, Berlin.....	"	30	John Sloan, London, Ont...
" 12	Evaporated Cream..	44724	Barnsdale Trading Co., Stratford.	"	45	Geo. Watts & Sons, Brantford.
" 15	Condensed Milk	44728	P. J. Dean, Goderich	"	38	Masuret, London
April 11	"	44737	N. E. Coppin.....	"	45	St. Chas. Condensing Co., Ingersoll.
" 14	"	44741	McCully & Haugh, Stratford.	"	45	Unknown.....
" 14	"	44714	Pickard & Fleming, St. Marys.	"	45	John Malcom & Son, St. George.
" 19	"	44749	Armstrong Bros., Fergus..	"	30	T. Kinnear, Grocer, Toronto.
" 21	"	44752	B. A. McEwin, Clinton...	"	45	St. Chas. Condensing Co., Ingersoll.
" 21	"	44753	J. P. Shepherd & Co., Clinton.	"	45	" " ..
DISTRICT OF WINDSOR—						
Mar. 3	Condensed Milk	42508	Jno. Diprose, London.....	3 tins.	45	St. Chas. Condensing Co., Ingersoll.
" 3	Evaporated Cream.	42511	Harry Ranahan, London...	3 "	45	Aylmer Condensed Milk Co., Aylmer, Ont.
" 4	Condensed Milk	42514	Jno. Diprose, No. 2 Store, London.	3 "	45	" " ..
" 4	Evaporated Cream..	42515	A. J. Clark, London	3 "	45	St. Chas. Condensing Co., Ingersoll.
" 5	Condensed Milk	42517	W. T. Strong, London	4 "	75	Henri Nestle, Vevey, Switzerland.
" 7	"	42521	Clement Drug Co., Sarnia.	3 "	75	Borden Condensed Milk Co., New York.
" 7	"	42525	Stanley C. Williams, Sarnia	3 "	30	Truro Condensed Milk Co...
" 8	Evaporated Cream..	42536	C. R. Polley, Petrolia...	3 "	45	St. Chas. Condensing Co., Ingersoll.
" 9	Condensed Milk	42542	Fred W. Judd, St. Thomas	3 "	75	Henri Nestle, Vevey, Switzerland.
9	"	42513	J. A. McCause, St. Thomas	3 "	40	Borden's Condensed Milk Co., New York.
DISTRICT OF MANITOBA—						
Mar. 14	Condensed Milk	39891	A. Macdonald & Co., Winnipeg.	3 tins.	40	Borden's Condensed Milk Co., Tillsburg, Ont.
" 14	"	39892	Wm. McCullough, Winnipeg.	3 "	45	The Truro Condensed Milk Co., Ltd., Truro, N.S.
" 14	"	39893	" " "	3 "	45	Aylmer Condensed Milk Co., Ltd., Aylmer, Ont.

EVAPORATED MILK (OR CREAM).

Inspector's Report (Is not an expres- sion of opinion).	RESULTS OF ANALYSIS.										No. of Sample.	Remarks and Opinion of the Chief Analyst.	
	Density.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to 500 cc Warm Water.	Calculated on 9 per cent basis.		Concen- tration.			Fat in original bulk.
T. KIDD, INSPECTOR.													
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.				
.....	1-3172	27.84	72.16	1.62	8.20	.....	54.12	.....	.....	44719		
.....	1-3110	27.56	72.44	1.60	8.08	.....	54.40	.....	.....	44720		
.....	1-3186	27.52	72.48	1.60	7.28	.....	55.44	.....	.....	44721		
.....	1-0673	74.12	25.88	1.44	7.20	9.05	.....	2.15	3.47	44724		
.....	1-3179	27.88	72.12	1.64	7.32	.....	55.48	.....	.....	44728		
.....	1-3103	28.20	71.80	1.42	8.30	.....	53.12	.....	.....	44737		
.....	1-3034	29.04	70.96	1.64	8.16	.....	52.56	.....	.....	44741		
.....	1-3179	28.28	71.72	1.66	7.60	.....	54.80	.....	.....	44744		
.....	1-3217	27.56	72.44	1.48	8.24	.....	54.72	.....	.....	44749		
.....	1-2960	32.36	67.64	1.60	7.48	.....	50.52	.....	.....	44752		
.....	1-3014	28.88	71.12	1.50	8.80	.....	52.12	.....	.....	44753		
JNO. TALBOT, INSPECTOR.													
Silver Cow.....	1-3034	28.28	71.72	1.64	8.24	.....	53.52	.....	.....	42508		
Canada First.....	1-0703	72.12	27.88	1.50	7.96	9.81	.....	2.30	3.60	42511		
.....	1-3298	25.96	74.04	1.72	7.68	.....	56.60	.....	.....	42514		
St. Charles.....	1-0649	73.04	24.96	1.46	6.20	8.81	.....	2.12	3.18	42515		
Nest Brand.....	1-3138	28.48	71.52	1.82	7.52	.....	53.42	.....	.....	42517		
Eagle.....	1-3682	29.96	70.04	1.64	7.24	.....	53.12	.....	.....	42521		
Clover.....	1-3104	30.92	69.08	1.56	7.24	.....	53.20	.....	.....	42525		
St. Charles.....	1-0710	72.36	27.64	1.48	7.88	9.65	.....	2.28	3.59	42536		
Nestle's condensed milk.....	1-3158	27.60	72.40	1.86	8.08	.....	54.40	.....	.....	42542		
Challenge.....	1-3220	26.88	73.12	1.76	8.20	.....	55.52	.....	.....	42543		
A. C. LARIVIERE, INSPECTOR.													
Gold Seal.....	1-3186	26.44	73.56	1.64	8.16	.....	55.32	.....	.....	39891		
Reindeer.....	1-3220	26.92	73.08	1.62	8.08	.....	55.00	.....	.....	39892		
Canada First.....	1-2954	30.24	69.76	1.76	8.04	.....	51.80	.....	.....	39893		

TABLE I.—CONDENSED AND

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cents.	
DISTRICT OF MANITOBA—						
1910.						
Mar. 14	Condensed Milk...	39894	J. N. Campbell, Winnipeg.	3 tins.	45	The A. Macdonald Co., Winnipeg.
" 14	"	39895	H. E. Weldon & Co., Winnipeg.	3 "	30	Chtn. Condensed Milk Co., Charlottetown.
" 14	Evaporated Cream...	39896	A. Macdonald & Co., Winnipeg.	3 "	30	
" 14	"	39897	H. E. Weldon & Co., Winnipeg.	3 "	30	The Truro Condensed Milk Co., Ltd., Truro, N.S.
" 14	Condensed Milk...	39898	The Hudson Bay Co., Winnipeg.	3 "	40	Emery Food Co., Chicago, Ill.
" 14	"	39899	"	3 "	40	Canada Condensed Milk Co., Ltd., Antigonish, N.S.
" 15	Evaporated Cream...	39900	A. W. Smith, Winnipeg.	3 "	30	The Canadian Condensing Co., Ltd., Chesterville, Ont.
DISTRICT OF CALGARY—						
Mar. 8	Evaporated Cream.	35657	J. H. Morris & Co., Edmonton.	3 tins.	45	St. Chas. Condensing Co., Illinois, U.S.A.
" 8	Condensed Milk...	35658	Gilbert Berg, Edmonton.	3 "	45	The Truro Condensed Milk Co., Truro, N.S.
" 8	"	35659	Hallier & Aldridge, Edmonton.	3 "	45	"
" "	"	35660	The Edmonton Drug Co., Edmonton.	3 "	45	Bordens Condensed Milk Co., New York.
" 15	Evaporated Cream	35661	D. Milne Co., Ltd., Medicine Hat.	3 "	45	St. Chas. Condensing Co., Illinois, U.S.A.
" 15	Condensed Milk ..	35662	"	3 "	45	Bordens Condensed Milk Co., New York.
" 15	"	35663	Spencer & Todd, Medicine Hat.	3 "	45	The Truro Condensed Milk Co., Truro, N.S.
" 15	Evaporated Cream	35664	L. B. Cochrane, Medicine Hat.	3 "	45	B.C. Condensed Milk Co., New Westminster.
" 18	"	35665	Campbell Wilson & Horne, Calgary.	3 "	45	Aylmer Condensed Milk Co., Aylmer, Ont.
" 22	Condensed Milk	35666	Hudson's Bay Co., Edmonton.	3 "	45	"
DISTRICT OF VANCOUVER—						
Mar. 10	Evaporated Cream	37828	Geo. Wagg, Vancouver.	3 tins.	40	B.C. Milk Condensing Co., B.C.
" 10	Condensed Milk...	37829	Woodward Dept. Store, Vancouver, B.C.	3 "	45	Canada Milk Condensing Co.
" 10	Evaporated Cream	37830	McCulloch Bros., Vancouver, B.C.	3 "	25	Pacific Coast Condensing Co.
" 10	Condensed Milk....	37831	S. Goranson, Vancouver, B.C.	3 "	60	Bordens Condensed Milk Co., B.C.
" 10	"	47832	Peoples Grocery, Vancouver, B.C.	3 "	25	Truro Condensed Milk Co., B.C.
" 10	Evaporated Cream...	37833	A. Murray & Co., Vancouver, B.C.	3 "	45	Aylmer Condensed Milk Co., B.C.

EVAPORATED MILK (OR CREAM).

RESULTS OF ANALYSIS.

Inspector's Report (Is not an expression of opinion).	RESULTS OF ANALYSIS.										No. of Sample.	Remarks and Opinion of the Chief Analyst.
	Density.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	Loss to 50° Warm Water.	Calculated on 9 per cent basis.				
								Concen- tration.	Fat in original bulk.			

A. C. LARIVIERE, INSPECTOR—Concluded.												
White Star.....	1.3104	20.60	70.40	1.86	7.96	.....	52.52	.....	.....	.....	39804	
Canadian.....	1.2927	31.60	68.40	1.50	8.16	.....	50.36	.....	.....	.....	39895	
St. Charles.....	1.0703	72.84	27.16	1.42	7.20	9.34	.....	2.30	3.25	.....	39806	
Jersey Cream.....	1.0710	73.16	26.84	1.42	7.24	9.84	.....	2.26	3.32	.....	39897	
Emery.....	1.3234	27.16	72.84	1.62	7.64	.....	55.76	.....	.....	.....	39898	
Pheasant.....	1.3103	33.00	67.00	1.80	4.24	.....	52.40	.....	.....	.....	39899	
Imperial.....	1.0615	71.96	22.04	1.14	5.64	8.70	1.88	3.10	39900	

R. W. FLETCHER, INSPECTOR												
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R. W. FLETCHER, INSPECTOR.

.....	1.0789	71.63	28.40	1.64	6.60	10.74	2.48	2.72	35657	
.....	1.3096	28.84	71.16	1.58	8.04	53.60	35658	
.....	1.3090	28.60	71.40	1.58	8.60	.....	53.48	.....	.....	.....	35659	
Eagle.....	1.3214	27.84	72.16	1.76	7.44	.....	55.40	.....	.....	.....	35660	
.....	1.0763	72.12	27.88	1.46	7.04	10.68	.....	2.36	3.04	.....	35661	
Challenge.....	1.3220	27.04	72.96	1.60	7.72	.....	55.68	.....	.....	.....	35662	
Reindeer.....	1.3270	26.88	73.12	1.76	8.04	.....	55.72	.....	.....	.....	35663	
B.C. Midget.....	1.0846	72.68	27.32	1.48	5.00	11.40	.....	2.61	2.02	.....	35664	
Canada First.....	1.0715	71.60	28.40	1.56	8.08	9.89	.....	2.35	2.58	.....	35665	
".....	1.3104	30.20	69.80	1.52	7.64	.....	52.40	.....	.....	.....	35666	

JNO. POWER, INSPECTOR.

B.C. Brand.....	1.0702	75.36	24.64	1.26	5.92	10.16	.....	2.16	2.85	.....	37828	
Pheasant.....	1.3284	30.12	69.88	1.74	2.76	.....	57.56	.....	.....	.....	37829	
Carnation.....	1.0629	76.20	23.80	1.42	6.68	8.62	.....	1.96	3.51	.....	37830	
Eagle.....	1.3116	28.00	72.00	1.60	7.88	.....	53.92	.....	.....	.....	37831	
Reindeer.....	1.3123	27.92	72.08	1.68	8.56	.....	53.68	.....	.....	.....	37832	
Canada First.....	1.0721	72.80	27.20	1.44	7.04	10.16	.....	2.33	3.14	.....	37833	

TABLE I—CONDENSED AND

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.
				Quantity.	Cost.	
DISTRICT OF VANCOUVER—						
1910.						
Mar. 10	Evaporated Cream	37834	A. McFarlane, Vancouver, B.C.	3 tins.	40	St. Chas. Condensing Co....
" 11	Condensed Milk	37835	J. A. Teпоorten & Co., Vancouver, B.C.	3 "	45	Henri Nestle.....
" 11	"	37836	" " "	3 "	45	"
" 11	"	37837	" " "	3 "	45	"
DISTRICT OF VICTORIA—						
Mar. 15	Evaporated Cream...	41649	Windsor Grocery Co., Victoria, B.C.	3 tins.	45	B.C. Condensing Co., New Westminster.
" 15	Jersey Cream...	41650	" " "	3 "	40	Truro Condensed Milk Co., Ltd., Truro, N.S.
" 15	Condensed Milk...	41651	" " "	3 "	45	" " "
" 16	Evaporated Cream...	41652	Saunders Grocery Co., Ltd.	3 "	25	Pacific Coast Condensed Milk Co., Kent, Wash.
" 16	Condensed Milk...	41653	" " "	3 "	40	Bordens Condensed Milk Co., New York.
" 16	"	41654	" " "	3 "	40	Aylmer Condensed Milk Co., Aylmer, Ont.
" 16	"	41655	" " "	3 "	40	Bordens Condensed Milk Co., New York.
" 17	"	41656	Scott & Peden, Victoria, B.C.	3 "	50	John Malcom & Son., St. George, Ont.
" 17	Evaporated Cream.	41657	Wm. B. Hall, Victoria, B.C.	3 "	30	T. L. Htn. Condensed Milk Co., Ltd., Charlottetown.
" 17	"	41658	Harrison & McDonald, Victoria, B.C.	5 "	30	Ingersoll Factory, Ingersoll, Ont.

EVAPORATED MILK (OR CREAM).

RESULTS OF ANALYSIS.											No. of Sample.	Remarks and Opinion of the Chief Analyst.
Inspector's Report. (Is not an expression of opinion).	Dry.	Water.	Total Solids.	Fat.	Milk Sugar.	Loss to 500 cc Warm Water.	Calculated on 9 per cent basis.					
							Concentration.	Fat in original bulk.				
JNO. POWER, INSPECTOR—Concluded.												
		p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.			
St. Charles.	1-0716	74.28	25.72	1.48	6.20	9.98	.....	2.26	2.86	37834	
"Nest Brand" Swiss.	1-3138	27.68	72.32	1.66	8.76	.....	54.20	.....	.....	37836	
"Nest Brand" Norway.	1-3186	27.56	72.44	1.72	8.68	.....	54.44	.....	.....	37836	
2 "Nest Brand" England.	1-3200	26.84	73.16	1.70	8.68	.....	54.64	.....	.....	37837	

D. O'SULLIVAN, INSPECTOR.

B.C. Brand.....	1-0619	76.08	23.92	1.22	6.84	9.03	.....	1.95	3.60	41649		
Jersey Cream unsweetened.....	1-0783	69.92	30.08	1.66	7.84	10.70	.....	2.59	3.17	41650		
Reindeer.....	1-3227	27.04	72.96	1.68	7.56	.....	56.00	.....	.....	51651		
Carnation.....	1-0628	76.08	23.92	1.28	6.80	8.78	.....	1.96	3.57	41652		
Eagle.....	1-3200	28.48	71.52	1.54	7.32	.....	54.96	.....	.....	41653		
Canada First sweetened.....	1-3193	29.04	70.96	1.64	6.80	.....	54.56	.....	.....	41654		
Gold Seal.....	1-3158	20.88	79.12	1.74	7.36	.....	56.68	.....	.....	41655		
Banner.....	1-3298	28.24	71.76	1.76	6.40	.....	56.76	.....	.....	41656		
Empress.....	1-0796	69.80	30.20	1.46	8.12	11.14	.....	2.57	3.31	41657		
St. Charles.....	1-0710	73.12	26.88	1.58	6.92	9.92	.....	2.31	3.12	41658		

TABLE II. -EVAPORATED (UNSWEETENED) MILK.

Name of Brand.	Sample.	Density.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	CALCULATED ON 9 PER CENT BASIS.	
								Concen- tration.	Fat in original bulk.
			p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.
B. C.	35694	1.0816	72.68	27.32	1.48	5.00	11.40	2.61	2.02
"	37828	1.0702	75.36	24.64	1.36	5.92	10.16	2.16	2.85
"	41649	1.0619	76.08	23.92	1.22	6.84	9.03	1.95	3.60
"	Means.	1.0722	74.71	25.29	1.32	5.92	10.19	2.24	2.82
Canada First	1285	1.0861	69.00	31.00	1.76	7.40	12.51	2.76	2.82
"	35665	1.0715	71.60	28.40	1.56	8.08	9.89	2.36	3.58
"	37833	1.0721	72.80	27.20	1.44	7.04	10.16	2.33	3.14
"	38660	1.0845	69.60	30.40	1.86	7.56	12.19	2.67	3.98
"	41466	1.0789	70.56	29.44	1.48	7.48	10.91	2.56	3.06
"	41916	1.0750	72.92	27.08	1.46	6.68	10.78	2.37	2.96
"	42511	1.0703	72.12	27.88	1.50	7.96	9.81	2.30	3.40
"	42906	1.0847	69.20	30.80	1.70	8.00	11.96	2.12	3.16
"	Means.	1.0770	70.98	29.02	1.59	7.52	11.03	2.43	3.16
Carnation	37830	1.0629	76.20	23.80	1.42	6.68	8.62	1.96	3.51
"	41652	1.0628	76.08	23.92	1.28	6.80	8.78	1.96	3.57
"	Means.	1.0629	76.14	23.86	1.35	6.74	8.70	1.96	3.54
Empress	41657	1.0798	69.80	30.20	1.46	8.12	11.14	2.57	3.31
Imperial	39900	1.0615	77.96	22.04	1.14	5.64	8.70	1.58	3.10
Jersey Cream	1287	1.0678	73.44	26.56	1.46	7.40	9.31	2.21	3.48
"	1288	1.0780	72.08	27.92	1.56	6.76	10.94	2.46	2.88
"	38650	1.0736	73.16	26.84	1.56	6.92	10.00	2.31	3.13
"	39669	1.0727	72.66	27.34	1.74	6.76	10.30	2.39	2.94
"	39897	1.0710	73.16	26.84	1.42	7.24	9.84	2.26	3.32
"	40111	1.0700	73.52	26.48	1.46	7.04	9.57	2.24	3.26
"	41469	1.0708	73.12	26.88	1.40	7.48	9.42	2.24	3.47
"	41650	1.0783	69.92	30.08	1.66	7.84	10.70	2.59	3.17
"	41918	1.0757	72.76	27.24	1.74	6.88	10.53	2.36	3.04
"	42536	1.0710	72.36	27.64	1.48	7.88	9.65	2.26	3.59
"	42940	1.0730	71.80	28.20	1.54	7.76	10.10	2.37	3.42
"	Means.	1.0709	72.53	27.47	1.55	7.27	10.03	2.34	3.25
Libby's	41465	1.0679	75.36	24.64	1.00	6.00	9.90	2.15	2.80
Peerless	1286	1.0695	75.00	25.00	1.44	6.16	10.11	2.17	2.94
"	36536	1.0783	71.64	28.36	1.70	6.96	10.99	2.49	2.93
"	39667	1.0780	72.16	27.84	1.54	6.92	10.33	2.43	2.98
"	41464	1.0771	72.34	27.66	1.82	7.08	11.63	2.39	3.10
"	41917	1.0721	74.00	26.00	1.68	6.56	10.51	2.25	3.04
"	42009	1.0763	72.92	27.08	1.54	6.52	10.95	2.39	2.85
"	Means.	1.0752	73.01	26.97	1.62	6.70	10.65	2.35	2.98
St. Charles	35657	1.0789	71.60	28.40	1.64	6.60	10.73	2.48	2.72
"	35661	1.0765	72.12	27.88	1.46	7.04	10.68	2.36	3.04
"	37834	1.0716	74.28	25.72	1.48	6.20	9.93	2.25	2.86
"	38652	1.0728	72.48	27.52	1.44	7.00	10.01	2.37	3.07
"	39665	1.0761	72.32	27.68	1.58	6.68	10.67	2.44	2.86
"	39896	1.0703	72.84	27.16	1.42	7.20	9.34	2.30	3.25

TABLE II.—EVAPORATED (UNSWEETENED) MILK.

Name of Brand.	Sample.	Density.	Water.	Total Solids.	Ash.	Fat.	Milk Sugar.	CALCULATED ON 9 PER CENT BASIS.	
								Concentration.	Fat in original bulk.
			p. c.	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.
St. Charles.	41402	1.0733	73.08	26.92	1.54	6.88	10.34	2.32	3.09
"	41658	1.0710	73.12	26.88	1.58	6.92	9.92	2.31	3.12
"	41919	1.0700	74.04	25.96	1.44	6.44	9.85	2.21	3.22
"	42515	1.0649	75.01	24.99	1.46	6.20	8.81	2.12	3.18
"	42837	1.0682	75.24	24.76	1.46	6.20	9.49	2.14	3.01
"	44724	1.0373	74.12	25.88	1.44	7.20	9.05	2.15	3.47
"	Means.	1.0717	73.36	26.64	1.50	6.94	9.91	2.20	3.07

TABLE III. CONDENSED (SWEETENED) MILK.

Name of Brand	Sample.	Density.	Water.	Total Solids.	Ash.	Fat.	WATER TO 500 cc. Warm Water.
			p. c.	p. c.	p. c.	p. c.	p. c.
Anchor.....	41467	1.3104	29.32	70.68	1.82	8.28	52.12
Banner.....	41468	1.3448	28.72	71.28	1.70	3.88	58.20
".....	41656	1.3238	28.24	71.76	1.76	6.40	56.76
".....	41744	1.3179	28.28	71.72	1.66	7.60	54.80
".....	Means..	1.3309	28.41	71.59	1.71	5.96	56.60
Beaver.....	38648	1.3158	28.80	71.20	1.62	7.56	54.16
Canadian....	39895	1.2927	31.60	68.40	1.50	8.16	50.36
Canada First.....	1282	1.3123	28.08	71.92	1.78	7.84	54.24
".....	35666	1.3104	30.20	69.80	1.52	7.64	52.40
".....	38651	1.3165	28.48	71.52	1.72	7.48	55.00
".....	39666	1.3131	28.16	71.84	1.82	8.12	53.64
".....	39893	1.2954	30.24	69.76	1.76	8.04	51.80
".....	40410	1.3186	28.48	71.52	1.64	7.16	54.72
".....	41654	1.3193	29.04	70.96	1.64	6.80	54.56
".....	42514	1.3208	25.96	74.04	1.72	7.68	56.60
".....	42939	1.3110	27.36	72.64	1.68	8.88	53.16
".....	Means..	1.3140	28.45	71.55	1.70	7.74	54.01
Challenge.....	1279	1.3144	27.32	72.68	1.46	8.32	53.92
".....	1281	1.3100	29.48	70.52	1.52	6.96	54.24
".....	35662	1.3220	27.04	72.96	1.80	7.72	55.68
".....	36537	1.3117	28.64	71.36	1.60	7.88	53.68
".....	38653	1.3242	26.20	73.80	1.74	8.28	55.52
".....	41463	1.3117	28.24	71.76	1.42	7.76	53.72
".....	41471	1.3193	27.00	73.00	1.58	7.64	55.84
".....	42543	1.3220	26.88	73.12	1.76	8.20	55.52
".....	44721	1.3186	27.52	72.48	1.60	7.28	55.44
".....	44749	1.3217	27.56	72.44	1.48	8.24	54.72
".....	Means..	1.3175	27.59	72.41	1.58	7.83	54.89
Clover.....	39664	1.3130	29.24	70.76	1.56	7.16	54.80
".....	40499	1.3116	29.36	70.64	1.62	7.68	54.16
".....	41923	1.3116	31.04	68.96	1.54	7.00	53.40
".....	42525	1.3104	30.92	69.08	1.56	7.24	53.20
".....	Means..	1.3116	30.14	69.86	1.57	7.27	53.89
Eagle.....	35660	1.3214	27.84	72.16	1.76	7.44	55.40
".....	37831	1.3116	28.00	72.00	1.60	7.88	53.92
".....	39661	1.3242	27.12	72.88	1.54	7.80	55.72
".....	41653	1.3200	28.48	71.52	1.54	7.32	54.96
".....	42521	1.3082	29.96	70.04	1.64	7.24	53.12
".....	42910	1.3158	26.68	73.32	1.42	9.00	54.28
".....	44221	1.3214	27.80	72.20	1.72	7.60	54.64
".....	44223	1.3131	27.52	72.48	1.56	9.00	52.84
".....	44226	1.3234	27.28	72.72	1.58	7.88	55.92
".....	44227	1.3021	31.08	68.92	1.48	7.52	52.52
".....	44228	1.3242	27.60	72.40	1.72	7.80	55.72
".....	44230	1.3214	27.68	72.32	1.64	7.44	54.96
".....	44720	1.3110	27.56	72.44	1.60	8.08	54.40
".....	Means..	1.3167	28.04	71.96	1.60	7.85	54.49

TABLE III.—CONDENSED (SWEETENED) MILK.—Continued.

Name of Brand.	Sample.	Density.	Water.	Total Solids.	Ash.	Fat.	Loss to 500 cc Warm Water.
			p. c.	p. c.	p. c.	p. c.	p. c.
Emery's	39898	1.3231	27.16	72.84	1.62	7.64	55.76
Gold Seal	36534	1.3291	26.64	73.36	1.72	7.28	57.20
"	39891	1.3186	26.44	73.56	1.64	8.16	55.32
"	41655	1.3158	26.88	73.12	1.74	7.36	56.68
"	Means.	1.3212	26.65	73.35	1.70	7.60	56.40
Good Luck	42934	1.3035	30.92	69.08	1.66	7.06	53.00
Lion	38647	1.2920	29.96	70.04	1.54	8.92	50.68
Nestle's, N.B. (prepared in England)	1283	1.3172	27.40	72.60	1.78	8.48	53.40
"	46529	1.3270	27.36	72.64	1.76	8.48	54.68
"	36531	1.3200	27.24	72.76	1.76	8.28	54.44
"	37837	1.3206	26.84	73.16	1.70	8.68	54.64
"	38646	1.3138	27.32	72.68	1.88	9.08	52.52
"	38649	1.3276	26.24	73.76	1.98	7.60	55.68
"	38654	1.3206	27.04	72.96	1.86	8.48	53.76
"	40403	1.3260	27.40	72.60	1.78	8.42	54.28
"	40406	1.3172	27.40	72.60	1.66	8.60	54.12
"	41480	1.3234	27.24	72.76	1.86	8.48	54.64
"	42517	1.3138	28.48	71.52	1.82	7.52	53.42
"	42542	1.3158	27.60	72.40	1.86	8.08	54.40
"	42907	1.3172	28.20	71.80	1.74	7.34	53.60
"	Means.	1.3195	27.87	72.63	1.80	8.27	54.12
Nestle's N.B. (prepared in Norway)	36530	1.3193	27.08	72.92	1.66	8.52	55.32
"	36532	1.3179	26.56	73.44	1.78	9.38	54.52
"	37836	1.3186	27.56	72.44	1.72	8.68	54.44
"	40404	1.3227	27.04	72.96	1.76	8.36	55.60
"	40405	1.3206	27.08	72.92	1.74	8.72	55.80
"	41479	1.3220	26.88	73.12	1.68	8.68	55.36
"	Means.	1.3202	27.03	72.97	1.72	8.69	55.17
Nestle's Swiss Milk	36528	1.3144	26.44	73.56	1.60	9.04	51.52
"	37835	1.3138	27.68	72.32	1.66	8.76	54.20
"	40402	1.3048	26.28	73.72	1.72	9.00	54.48
"	41481	1.3138	26.68	73.32	1.68	9.00	54.24
"	41920	1.3186	26.44	73.56	1.62	8.92	54.16
"	Means.	1.3131	26.82	73.18	1.66	8.94	54.32
Oak	38655	1.3090	28.24	71.76	1.82	8.42	53.56
Pheasant	37829	1.3284	30.12	69.88	1.74	2.76	57.36
"	39668	1.3206	31.68	68.32	1.76	5.04	53.36
"	39899	1.3103	33.00	67.00	1.80	4.24	52.40
"	40407	1.2987	32.96	67.04	1.70	5.36	51.52
"	Means.	1.3145	31.94	68.06	1.75	4.35	53.71
Princess	41470	1.3383	27.32	76.68	1.76	5.40	57.36

TABLE III.—CONDENSED (SWEETENED) MILK—*Concluded.*

Name of Brand.	Sample.	Density.	Water.	Total Solids.	Ash.	Fat.	Loss to 500 cc. Warm Water.
			p. c.	p. c.	p. c.	p. c.	p. c.
Purity.....	39663	1.3220	27.32	72.68	1.62	7.64	55.28
Red Cow.....	41922	1.3455	32.24	67.76	1.92	0.60	56.36
Reindeer.....	35668	1.3096	28.84	71.16	1.58	8.04	53.60
".....	35659	1.3090	28.60	71.40	1.58	8.60	53.48
".....	35663	1.3270	26.88	73.12	1.76	8.04	55.72
".....	39533	1.3116	27.88	72.12	1.66	8.74	53.00
".....	37832	1.3122	27.92	72.08	1.68	8.56	53.68
".....	39662	1.3263	26.96	73.04	1.86	7.60	56.00
".....	39892	1.3220	26.92	73.08	1.62	8.08	55.00
".....	40408	1.3103	40.00	70.00	1.54	6.96	54.28
".....	41651	1.3227	27.04	72.96	1.68	7.56	56.00
".....	41921	1.3298	27.00	73.00	1.86	7.36	55.96
".....	42908	1.3227	27.48	72.52	1.68	7.84	55.04
".....	44719	1.3172	27.84	72.16	1.52	8.20	54.12
".....	Means..	1.3183	27.78	72.22	1.68	7.97	54.66
Royal.....	41924	1.3293	29.52	70.48	1.76	4.60	55.00
Silver Cow.....	1280	1.3028	29.76	70.24	1.64	8.24	51.80
".....	36535	1.3014	28.04	71.96	1.56	6.96	55.32
".....	42508	1.3034	28.28	71.72	1.64	8.24	53.52
".....	44225	1.3144	27.32	72.68	1.54	8.32	53.60
".....	44728	1.3179	27.84	72.12	1.54	7.32	55.48
".....	44737	1.3103	28.20	71.80	1.42	8.30	53.12
".....	44741	1.3034	29.04	70.96	1.64	8.16	52.96
".....	44752	1.2960	32.36	67.64	1.60	7.48	50.52
".....	44753	1.3014	28.88	71.12	1.50	8.80	52.12
".....	Means....	1.3057	28.86	71.14	1.56	7.98	53.16
Sweet's Pride.....	41925	1.3183	27.28	72.72	1.82	8.28	54.80
White Star.....	39894	1.3104	29.60	70.40	1.86	7.96	54.52

APPENDIX

MILK AND ITS PRODUCTS.

1. *Milk*, unless otherwise specified, is the fresh, clean and unaltered product, obtained by the complete, uninterrupted milking, under proper sanitary conditions, of one or more healthy cows, properly fed and kept, excluding that obtained within two weeks before and one week after calving, and contains not less than three and one quarter (3.25) per cent of milk fat, and not less than eight and one-half (8.50) per cent of milk solids, other than fat.

2. *Skim Milk* is milk from which a part or all of the cream has been removed, and contains not less than eight and one half (8.50) per cent of non-fat, milk solids.

3. *Pasteurized Milk*, is milk that has been heated below boiling, but sufficiently to kill most of the active organisms present; and immediately cooled to 45°F., or lower, and kept at a temperature not higher than 45°F., until delivered to the consumer, at which time it shall not contain more than 10,000 bacteria per cubic centimetre.

NOTE.—Pasteurization should be effected by heating in a closed vessel for not less than twenty minutes at a temperature of 140° to 145° Fah.; or, for not less than fifteen minutes at a temperature of from 145° to 150° Fah. When milk is heated above 150° Fah. certain ferments and other constituents of the milk are more or less altered, and the digestibility of the resultant milk is injuriously affected.

4. *Sterilized Milk*, is milk that has been heated at the temperature of boiling water, or higher, for a length of time sufficient to kill all organisms present; and must be delivered to the consumer in a sterile condition. Sterilized milk shall not be sold, or offered for sale, except in hermetically closed containers, bearing the words 'This milk should be used within twelve (12) hours after opening the container.'

5. *Certified Milk*. Milk sold as certified milk, shall comply with the following requirements:—

- (a) It shall be taken from cows semi-annually subjected to the tuberculin test, and found without reaction.
- (b) It shall contain not more than 10,000 bacteria per cubic centimetre from June to September; and not more than 5,000 bacteria per cubic centimetre from October to May, inclusive.
- (c) It shall be free from blood, pus, or disease-producing organisms.
- (d) It shall be free from disagreeable odour or taste.
- (e) It shall have undergone no pasteurization or sterilization, and be free from chemical preservatives.
- (f) It shall have been cooled to 45°F., within half an hour after milking, and kept at that temperature until delivered to the consumer.
- (g) It shall contain 12 to 13 per cent of milk solids, of which, at least, 3.5 per cent is fat.
- (h) It shall be from a farm whose herd is inspected monthly by the veterinarian, and whose employees are examined monthly by a physician.

NOTE.—It is evident that the weight carried by the term 'certified' will depend upon the character of the organization which assumes responsibility. Doubtless this will usually be a local medical association; but there is nothing to prevent any responsible body of properly qualified persons from undertaking the production of certified milks.

It is difficult to see in what manner the Adulteration Act can be made to apply to the case of certified milk, except in the sense of requiring that a definite food material must be true to name.

The requirements above enumerated are such that their complete fulfilment can only be properly vouched for by a local system of inspection, not provided for by the Adulteration Act; the history of milk certification, in the sense described, suffices to prove the great benefits conferred upon a community which adopts such a method of ensuring a pure product for the use of infants and invalids; and the Department of Inland Revenue, in administering the Adulteration Act, will do everything possible to assist in securing the maintenance of the high standard for certified milk which has been set by medical commissions, as above defined. At the same time, it is recognized that the efficient carrying out of this programme must chiefly rest with the local commission.

6. *Evaporated Milk*, is milk from which a considerable portion of water has been evaporated, and contains not less than 26 per cent of milk solids, and not less than 7.20 per cent milk fat.

7. *Condensed Milk*, is milk from which a considerable portion of water has been evaporated, and to which sugar has been added. It contains not less than 28 per cent of milk solids, and not less than 7.7 per cent, of milk fat.

8. *Condensed Skim Milk* is skim milk from which a considerable portion of water has been evaporated, with or without the addition of sugar.

9. *Buttermilk* is the product that remains when butter is separated from ripened cream, by the usual churning processes; or a similar product, made by the appropriate treatment of skimmed milk.

10. *Goat's Milk, Ewe's Milk, &c.*, are the fresh, clean, lacteal secretions, free from colostrum, obtained by the complete milking of healthy animals other than cows, properly fed and kept, and conform in name to the species of animals from which they are obtained.

CREAM.

1. *Cream* is that portion of milk, rich in milk fat, which rises to the surface of milk on standing, or is separated from it by centrifugal force, is fresh and clean, and contains (unless otherwise specified), not less than eighteen (18) per cent, of milk fat.

2. *When Guaranteed to Contain* another percentage of milk fat than eighteen (18) per cent, it must conform to such guarantee.

3. *Cream* must be entirely free from gelatine, sucrate of lime, gums or other substances added with a view to give density, consistency or apparent thickness to the article.

4. *Cream* must contain no preservatives of any kind, nor any colouring matter, other than is natural to milk.

5. *Evaporated Cream, Clotted Cream, Condensed Cream* or any other preparation purporting to be a special cream, except ice-cream, must conform to the definition of cream, and must contain at least twenty-five (25) per cent of milk fat.

MILK FAT OR BUTTER FAT.

1. *Milk Fat, Butter Fat*, is the fat of milk and has a Reichert-Meisel number not less than twenty-four (24) and a specific gravity not less than $0.905^{40^{\circ}\text{C}}$
 $^{40^{\circ}\text{C}}$

BUTTER.

1. *Butter* is the clean non-rancid product made by gathering in any manner the fat of fresh or ripened milk or cream into a mass, which also contains a small portion of the other milk constituents, with or without salt, and contains not less than eighty-two and five-tenths (82.5) per cent milk fat, and not more than sixteen (16) per cent, of water. Butter may also contain added colouring matter of harmless character.

CHEESE.

1. *Cheese* is the sound, solid, and ripened product made from milk or cream by coagulating the casein thereof with rennet or lactic acid, with or without the addition of ripening ferments and seasoning, and contains in the water-free substance, not less than forty-five per cent of milk fat. Cheese may also contain added colouring matter of harmless character.

2. *Skim Milk Cheese* is the sound, solid, and ripened product made from skim milk by coagulating the casein thereof with rennet or lactic acid, with or without the addition of ripening ferments and seasoning.

3. *Goat's Milk Cheese, Ewe's Milk Cheese, &c.*, are the sound, ripened products made from the milks of the animals specified, by coagulating the casein thereof with rennet or lactic acid with or without the addition of ripening ferments and seasoning.

ICE-CREAM.

1. *Ice-Cream* is a frozen product, made from cream and sugar, with or without harmless flavouring and colouring materials, and with or without gelatin, gum tragacanth, or other harmless stiffening materials, in amount less than two (2) per cent; and contains not less than fourteen (14) per cent of milk fat.

2. *Fruit Ice-Cream* is a frozen product, made as described under ice-cream, but containing sound, clean, and mature fruit. It must contain not less than twelve (12) per cent of milk fat.

3. *Nut Ice-Cream*, is a frozen product, made as described under ice-cream, but containing sound, non-rancid nuts. It must contain not less than twelve (12) per cent of milk fat.

MISCELLANEOUS MILK PRODUCTS.

1. *Whey* is the product remaining after the removal of fat and casein from milk in the process of cheese making.

2. *Kumiss* is the product made by the alcoholic fermentation of mare's milk or cow's milk.

3. *Milk Powder* is the soluble powder product made from milk, and contains, unless otherwise specified, not less than ninety-five (95) per cent of milk solids, and not less than twenty-six (26) per cent, of milk fat.

4. *Skim Milk Powder, Separated Milk Powder* is the soluble powder product made from skim milk, and contains not less than ninety-five (95) per cent of milk solids.

Ottawa, April 7, 1910.

A. MCGILL